



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0281; Directorate Identifier 2014-NE-05-AD; Amendment 39-17878; AD 2014-13-03]**

**RIN 2120-AA64**

**Airworthiness Directives; Rolls-Royce plc Turboprop Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Rolls-Royce plc (RR) RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 turboprop engines. We are issuing this AD to address, through an update to the electronic engine control (EEC) software, multiple risks of uncontained engine failure and damage to the airplane.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp); Internet: <https://www.aeromanager.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0281; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England

Executive Park, Burlington, MA 01803; phone: (781) 238-7758; fax: (781) 238-7199;  
email: mark.riley@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0281; Directorate Identifier 2014-NE-05-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2014-0086, dated April 11, 2014 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Investigation carried out by RR has identified the risk of fan flutter during ground maintenance running, which indicated the need to introduce a fan flutter Keep Out Zone (KOZ). In addition,

following Intermediate Pressure (IP) turbine overspeed events experienced on other Trent series engines, the need to introduce a protection against IP shaft failures in the event of an internal engine fire was identified.

Fan flutter may result in multiple fan blade failures and consequent release of uncontained high energy debris. An unprotected IP shaft failure may result in IP turbine overspeed, IP turbine burst and, ultimately, release of uncontained high energy debris. These conditions, if not corrected, could result in damage to, and reduced control of, the aeroplane.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0281.

#### **Relevant Service Information**

RR has issued Alert Service Bulletin (ASB) No. RB.211-73-AH531, Revision 1, dated March 7, 2014. The ASB describes procedures for modifying affected RB211 Trent 500 turbofan engines by installing new EEC software Version L6.1.2.

#### **FAA's Determination and Requirements of This AD**

This product has been approved by the aviation authority of the United Kingdom, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This AD requires removal of EEC software, Version L5.6.1 or earlier, and installation of a software version eligible for installation.

### **FAA’s Determination of the Effective Date**

No domestic operators use this product. Therefore, we find that notice and opportunity for prior public comment are unnecessary and that good cause exists for making this amendment effective in less than 30 days.

### **Costs of Compliance**

We estimate that this AD affects no engines installed on airplanes of U.S. registry. We also estimate that it will take about 1 hour per engine to comply with this AD. The average labor rate is \$85 per hour. Required parts cost is about \$0 per engine. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$0.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2014-13-03 **Rolls-Royce plc:** Amendment 39-17878; Docket No. FAA-2014-0281; Directorate Identifier 2014-NE-05-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to all Rolls-Royce plc (RR) RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 turbofan engines.

#### **(d) Reason**

This AD was prompted by the risk of fan flutter occurring during ground maintenance running, and the risk of intermediate-pressure (IP) shaft failure which may result in IP turbine overspeed and disk burst. We are issuing this AD to address, through an update to the electronic engine control (EEC) software, multiple risks of uncontained engine failure and damage to the airplane.

#### **(e) Actions and Compliance**

Comply with this AD within the compliance times specified, unless already done.

(1) After the effective date of this AD, within 3 months or 200 flight cycles, whichever occurs first, modify the engine by removing EEC software, Version L5.6.1 or earlier.

(2) Install EEC software eligible for installation.

**(f) Installation Prohibition**

After modification of an engine as required by paragraph (e) of this AD, do not install any EEC with a software Version L5.6.1 or earlier into any engine.

**(g) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(h) Related Information**

(1) For more information about this AD, contact Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7758; fax: (781) 238-7199; email: mark.riley@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2014-0086, dated April 11, 2014, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2014-0281.

(3) RR Alert Service Bulletin No. RB.211-73-AH531, Revision 1, dated March 7, 2014, which is not incorporated by reference in this AD, can be obtained from RR using the contact information in paragraph (h)(4) of this AD.



(4) Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp); Internet: <https://www.aeromanager.com>.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

**(i) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on June 13, 2014.

Ann C. Mollica,  
Acting Assistant Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

[FR Doc. 2014-14807 Filed 06/26/2014 at 8:45 am; Publication Date: 06/27/2014]